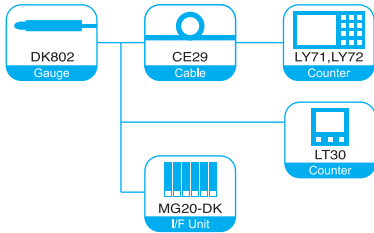


DK

DK802A/B Series

High resolution and High accuracy compact digital gauges.

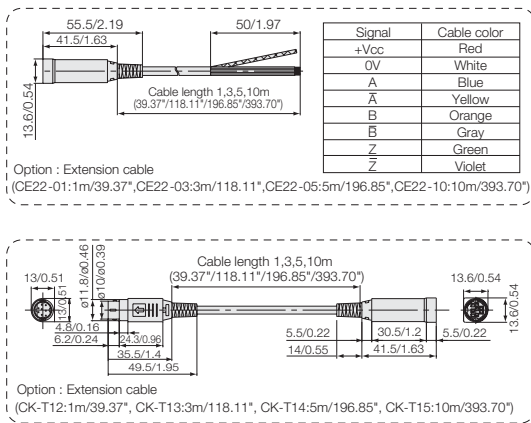
- Measuring range: 2 mm ● Accuracy: 1 μm , 1.5 μm ● Resolution: 0.1 μm , 0.5 μm
- Max. response speed: 80m/min (Resolution: 0.1 μm)
250m/min (Resolution: 0.5 μm)
- Built-in reference point ● Excellent resistance to workshop conditions.
- Robust design for harsh environments.



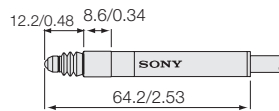
DK802AR/DK802AR5/
DK802BR/DK802BR5

Digital Gauge

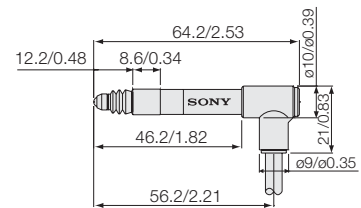
Dimensions



DK802AR/DK802AR5/
DK802BR/DK802BR5



DK802ALR/DK802ALR5/
DK802BLR/DK802BLR5



Unit : mm/inch

Specifications DK802 Series

Model	High-resolution Flange models		General-purpose resolution Flange models	
	DK802AR, DK802ALR	DK802BR, DK802BLR	DK802AR5, DK802ALR5	DK802BR5, DK802BLR5
Output	A/B/Z phase voltage-differential line driver output (compliant with EIA-422)			
Signal pitch	40 μm			
Resolution	0.1 μm		0.5 μm	
Measuring range	2 mm (0.08")			
*Accuracy (at 20°C / 68°F)	1 μm p-p		1.5 μm p-p	
Measuring force (at 20°C / 68°F)	Downward: 0.45 \pm 0.25 N Horizontal: 0.40 \pm 0.25 N Upward: 0.35 \pm 0.25 N			
Reference point	One location (at 1 mm/0.04" position of spindle movement)			
Maximum response speed	80 m/min	42 m/min	250 m/min	100 m/min
Air driving	Vacuum suction (DK802ALR / DK802ALR5 / DK802BLR / DK802BLR5)			
Vibration resistance (10 to 2000 Hz)	100m/s ²			
Impact resistance (11 ms)	1000m/s ²			
Protective structure	IP66 (not including interpolation box and connectors)			
Operating temperature	0°C to 50°C/32°F to 122°F			
Storage temperature	-20°C to 60°C/ -4°F to 140°F			
Power supply voltage	DC +5 V \pm 5%			
Power consumption	1 W			
Cable length	2.5 m/8.2'			
Diameter of stem	ϕ 8 / 0.31" dia.			
Mass ^{*1}	Approx. 20 g/0.7 oz			
Feeler	*Provided with a carbide ball tip (DZ-123) Mount screw M2.5"		Provided with a steel ball tip Mount screw M2.5	
Accessories	+P M4x5 screw (2pcs.). Installation spacer, Instruction Manual, Supplement			
*Output cable length(up to the electronic section)	22 m/72.2' max.			

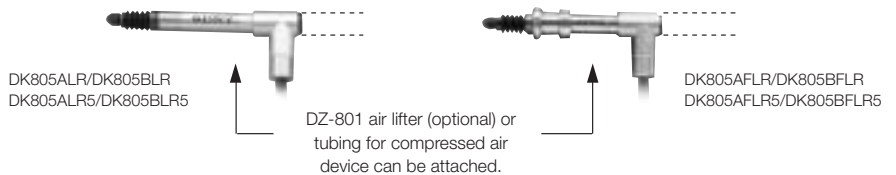
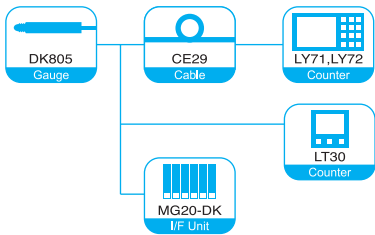
*1 The mass indicated is the total mass excluding the cable and interpolation box.

DK

DK805A/B Series

High accuracy, compact, and slim gauges suitable for installation on machines.

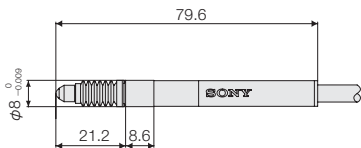
- Magnetic principle ● Excellent resistance to workshop conditions.
Resistant to oil, water, dust, vibration, and shock. ● Accuracy : 1 mp-p, 1.5 mp-p
- Resolution : 0.1 μm, 0.5 μm ● Measuring range: 5 mm
- Low measuring force
- Spindle can be moved vertically with an air pressure device
- Easy installation. Flange type gauges also available.



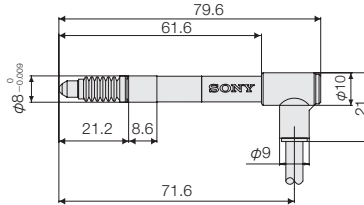
Digital Gauge

Dimensions

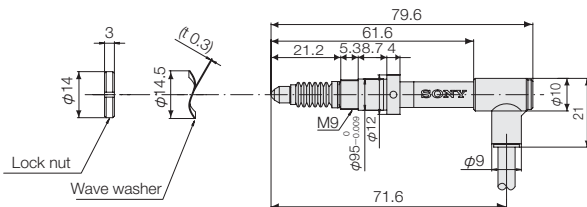
DK805AR/DK805BR
DK805AR5/DK805BR5



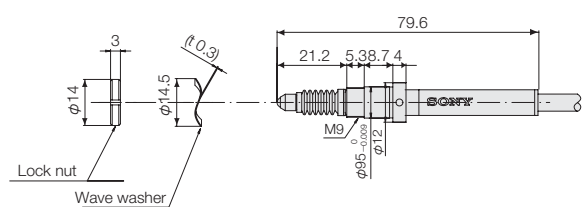
DK805ALR/DK805BLR
DK805ALR5/DK805BLR5



DK805AFLR/DK805BFLR
DK805AFLR5/DK805BFLR5



DK805AFR/DK805BFR
DK805AFR5/DK805BFR5



Unit : mm/inch

Specifications DK805 Series

Model	High-resolution Flange models		General-purpose resolution Flange model	
	DK805AFR, DK805AFLR, DK805AR, DK805ALR	DK805BFR, DK805BFLR, DK805BR, DK805BLR	DK805AFR5, DK805AFLR5, DK805AR5, DK805ALR5	DK805BFR5, DK805BFLR5, DK805BR5, DK805BLR5
Output	A/B/Z phase voltage-differential line driver output (compliant with EIA-422) *Please see P15 Output Signal Phase Difference.			
Signal pitch	40 μm			
Resolution	0.1 μm		0.5 μm	
Measuring range	5 mm (0.19")		5 mm	
Accuracy (at 20°C/68°F)	1 μm		1.5 μm	
Measuring force (at 20°C/68°F)	Downward: 0.45 ± 0.25 N Horizontal: 0.40 ± 0.25 N Upward: 0.35 ± 0.25 N			
Reference point	One location (at 1 mm/0.04" position of spindle movement)			
Maximum response speed	80 m/min	42 m/min	250 m/min	100 m/min
Air driving	Vacuum suction (DK805AFLR / DK805AFLR5 / DK805BFLR / DK805BFLR5 / DK805ALR / DK805ALR5 / DK805BLR5 / DK805BLR5)			
Vibration resistance (10 to 2000 Hz)	100 m/s ²			
Shock resistance (11 ms)	1000 m/s ²			
Protective structure	IP66 (not including interpolation box and connectors)			
Operating temperature	0°C to 50°C/32°F to 122°F			
Storage temperature	-20°C to 60°C/-4°F to 140°F			
Power supply voltage	DC +5 V ±5%			
Power consumption	1 W			
Cable length	2.5 m/8.2'			
Diameter of stem	φ 9.50 ⁰ _{-0.009} /0.375 ⁰ _{-0.0004} dia.			
Mass ¹⁾	Approx. 30 g/1.06 oz			
Feeler	Provided with a carbide ball tip (DZ-123) Mount screw M2.5		Provided with a steel ball tip Mount screw M2.5	
Accessories	Installation spacer, Instruction Manual, Supplement			
Output cable length (up to the electronic section)	22 m/72.2' max.			

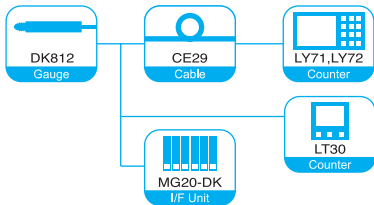
Note 1 : The mass indicated is the total mass excluding the cable and interpolation box.

DK

DK812A/B Series

High accuracy, rugged gauges.
Suitable for installation on machine.

- Measuring range: 2 mm ● Accuracy: 1 μm, 1.5 μm ● Resolution: 0.1 μm, 0.5 μm
- Max. response speed: 80m/min (Resolution: 0.1 μm)
250m/min (Resolution: 0.5 μm)
- Built-in reference point ● Excellent resistance to workshop conditions.
- Robust design for harsh environments.



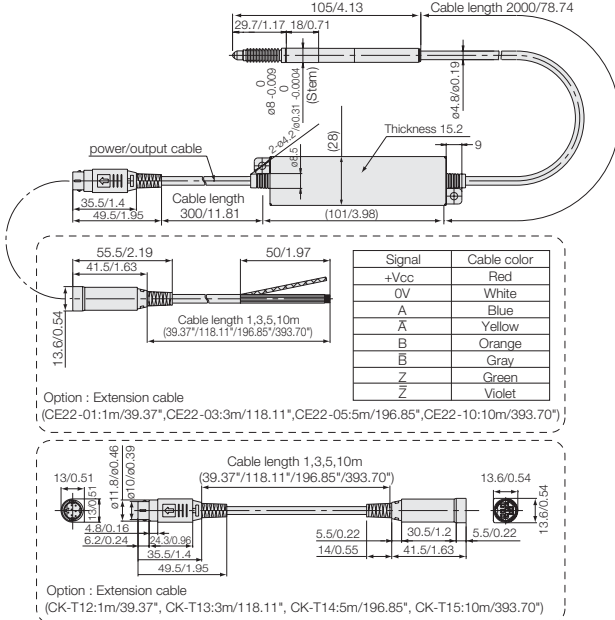
DK812AR/DK812AR5/
DK812BR/DK812BR5

DK812AFLR/DK812AFLR5
DK812ABLR/DK812BFLR5

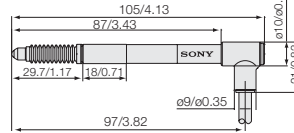
Digital Gauge

Dimensions

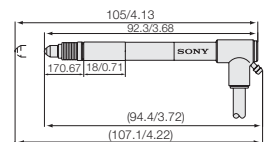
DK812AR/DK812AR5/DK812BR/DK812BR5



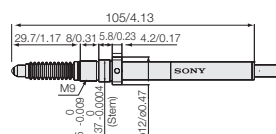
DK812ALR/DK812ALR5/DK812BLR/ DK812BLR5



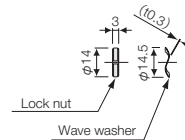
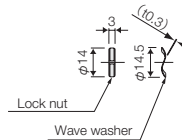
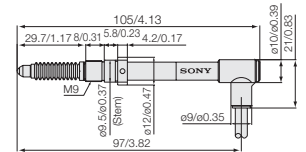
DK812AVR/DK812AVR5 DK812BVR5/DK812BVR5



DK812AFR/DK812AFR5 DK812BFR/DK812BFR5



DK812AFLR/DK812AFLR5 DK812ABLR/DK812BFLR5



Specifications DK812 Series

Model	High-resolution Flange models		General-purpose resolution Flange models	
	DK812AR, DK812ALR, DK812AFR, DK812AFLR, DK812AVR	DK812BR, DK812BLR, DK812BFR, DK812BFLR, DK812BVR	DK812AR5, DK812ALR5, DK812AFR5, DK812AFLR5, DK812AVR5	DK812BR5, DK812BLR5, DK812BFR5, DK812BFLR5, DK812BVR5
Output	A/B/Z phase voltage-differential line driver output (compliant with EIA-422)			
Signal pitch	40 μm			
Resolution	0.1 μm		0.5 μm	
Measuring range	12 mm (0.47")			
Accuracy (at 20°C / 68°F)	1 μm		1.5 μm	
Measuring force (at 20°C / 68°F)	Downward: 0.6 ± 0.3 N Horizontal: 0.5 ± 0.3 N Upward: 0.4 ± 0.3 N			
Reference point	One location (at 1 mm/0.04" position of spindle movement)			
Maximum response speed	80 m/min	42 m/min	250 m/min	100 m/min
Air driving	Vacuum suction (DK812ALR / DK812ALR5 / DK812BLR / DK812BLR5 / DK812AFLR / DK812AFLR5 / DK812BFLR / DK812BFLR5) Pneumatic push type (DK812AVR / DK812AVR5 / DK812BVR / DK812BVR5)			
Vibration resistance (10 to 2000 Hz)	100m/s ²			
Impact resistance (11 ms)	1000m/s ²			
Protective structure	IP66 (not including interpolation box and connectors)			
Operating temperature	0°C to 50°C/32°C F to 122°F			
Storage temperature	-20°C to 60°C/-4°F to 140°F			
Power supply voltage	DC +5 V ±5%			
Power consumption	1 W			
Cable length	2.5 m/8.2'			
Diameter of stem	φ"8 / 0.31" dia.			
Mass*1	Approx. 30 g/1.06 oz			
Feeler	*Provided with a carbide ball tip (DZ-123) Mount screw M2.5"		Provided with a steel ball tip Mount screw M2.5	
Accessories	+P M4x5 screw (2pcs.). Installation spacer, Instruction Manual, Supplement			
Output cable length (up to the electronic section)	22 m/72.2' max.			

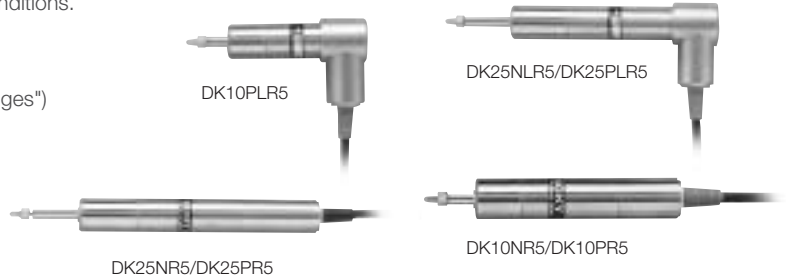
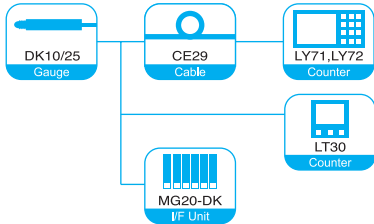
*1 The mass indicated is the total mass excluding the cable and interpolation box.

DK

DK10/25 Series

High accuracy, rugged gauges.
Suitable for installation on machine.

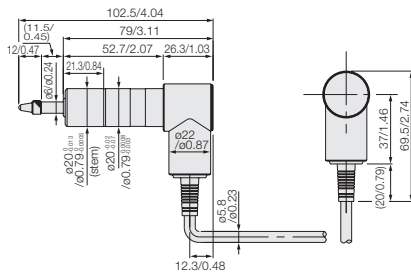
- Measuring range : 10 mm / 0.39" and 25 mm / 0.98" ● Accuracy : $\pm 1 \mu\text{m}$
- Resolution : $0.5 \mu\text{m}$ ● Excellent resistance to workshop conditions.
- High measuring force (10PR5/10PLR5/25PR5/25PLR5)
- Low measuring force (10NR5/25NR5/25NLR)
- A variety of accessories available (See "Accessories for Gauges")
- Direct connected to A/B quadrature counter



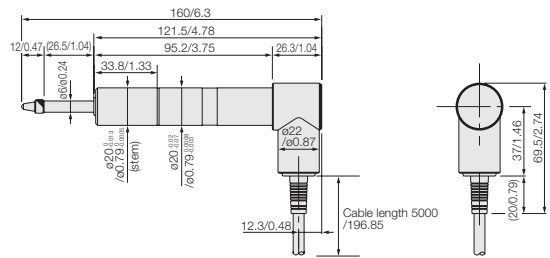
Digital Gauge

Dimensions

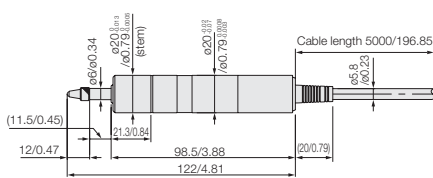
DK10PLR5



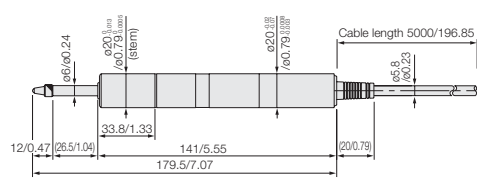
DK25NLR5/PLR5



DK10NR5/PR5



DK25NR5/PR5



Unit : mm/inch

Specifications

Model	DK10NR5	DK10PR5	DK10PLR5	DK25NR5	DK25PR5	DK25NLR5	DK25PLR5
Output	A/B/Z phase voltage-differential line driver output (compliant with EIA-422) *Please see P15 Output Signal Phase Difference.						
Resolution*1	0.5 μm						
Measuring range	10 mm			25 mm			
Accuracy (at 20°C)	2 μm						
Measuring force (at 20°C)	Upward	0.3 \pm 0.25 N	4.9 N or less	0.4 \pm 0.3 N	4.9 N or less	0.4 \pm 0.3 N	4.9 N or less
	Horizontal	0.6 \pm 0.3 N		0.7 \pm 0.35 N		0.7 \pm 0.35 N	
	Downward	0.8 \pm 0.35 N		1 \pm 0.4 N		1 \pm 0.4 N	
Reference point	One location (at 1 mm position of spindle movement)						
Maximum response speed	250 m/min						
Vibration resistance (10 to 2000 Hz)	150 m/s ²						
Impact resistance (11 ms)	1500 m/s ²						
Protective structure	IP50	IP64		IP50	IP64	IP50	IP64
Operating temperature	0°C to 50°C						
Storage temperature	-20°C to 60°C						
Power supply voltage	DC +5 V \pm 5%						
Power consumption	1 W or less						
Cable length	Approx. 2.5 m						
Diameter of stem	ϕ 20 $_{-0.013}^{+0.013}$ mm						
Mass*2	Approx. 230 g			Approx. 300 g			
Feeler	Provided with a carbide ball tip DZ-122 (Mount screw M2.5)						
Output cable length	22 m max.						
Guaranteed number of Strokes	Minimum 5 million cycles without shock						
Accessories	+P M4x5 screw (2 pcs.), Instruction Manual						

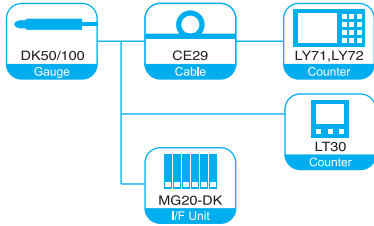
Note 1 : The resolution setting needs to be made when connecting to the LT30 series, MG series, and LY70 series. For details, please refer to the respective instruction manual.
Note 2 : The mass indicated is the total mass excluding the cable and interpolation box.

DK

DK50/100 Series

High accuracy, rugged gauges.
Suitable for installation on machine.

- Measuring range : 50 mm / 1.97", 100 mm / 3.94"
- Accuracy : 2 μm (DK50PR5/50NR5), 4 μm (DK100PR5/100NR5)
- Resolution : 0.5 μm ● Excellent resistance to workshop conditions.
- High measuring force (DK50PR5/100PR5) ● Low measuring force (DK50NR5/100NR5)
- Direct connected to A/B quadrature counter



DK50NR5/DK50PR5

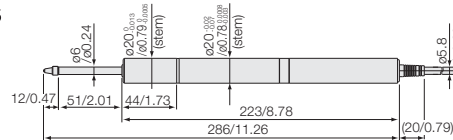


DK100NR5/DK100PR5

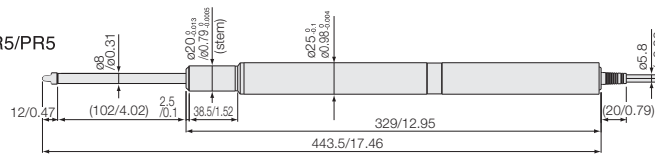
Digital Gauge

Dimensions

DK50NR5/PR5



DK100NR5/PR5



Unit : mm/inch

Specifications

Model	DK50NR5	DK50PR5	DK100NR5	DK100PR5
Output	A/B/Z phase voltage-differential line driver output (compliant with EIA-422) *Please see P15 Output Signal Phase Difference.			
Resolution*1	0.5 μm			
Measuring range	50 mm		100 mm	
Accuracy (at 20°C)	2 μm		4 μm	
Measuring force (at 20°C)	Upward	—	—	4.9 N or less
	Horizontal	0.9 ± 0.4 N	1.8 ± 0.65 N	
	Downward	1.3 ± 0.5 N	2.7 ± 0.55 N	
Reference point	One location (at 1 mm position of spindle movement)			
Maximum response speed	250 m/min			
Vibration resistance (10 to 2000 Hz)	150 m/s ²			
Impact resistance (11 ms)	1500 m/s ²			
Protective structure	IP50	IP64	IP50	IP64
Operating temperature	0°C to 50°C			
Storage temperature	-20°C to 60°C			
Power supply voltage	DC +5 V ±5%			
Power consumption	1 W or less			
Cable length	Approx. 2.5 m			
Diameter of stem	ø 20.0 ^{0.013} mm			
Mass*2	Approx. 360 g		Approx. 630 g	
Feeler	Provided with a carbide ball tip DZ-122 (Mount screw M2.5)			Provided with a carbide ball tip DZ-121 (Mount screw M2.5)
Output cable length	22 m max.			
Guaranteed number of Strokes	Minimum 5 million cycles without shock			
Accessories	+P M4x5 screw (2 pcs.), Instruction Manual			

Note 1 : The resolution setting needs to be made when connecting to the LT30 series, MG series, and LY70 series. For details, please refer to the respective instruction manual.

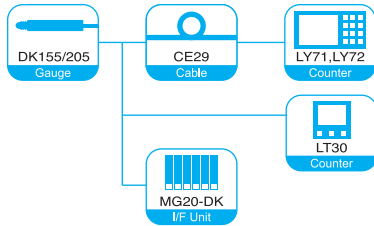
Note 2 : The mass indicated is the total mass excluding the cable and interpolation box.

DK

DK155/205

High accuracy, rugged gauges.
Suitable for installation on machine.

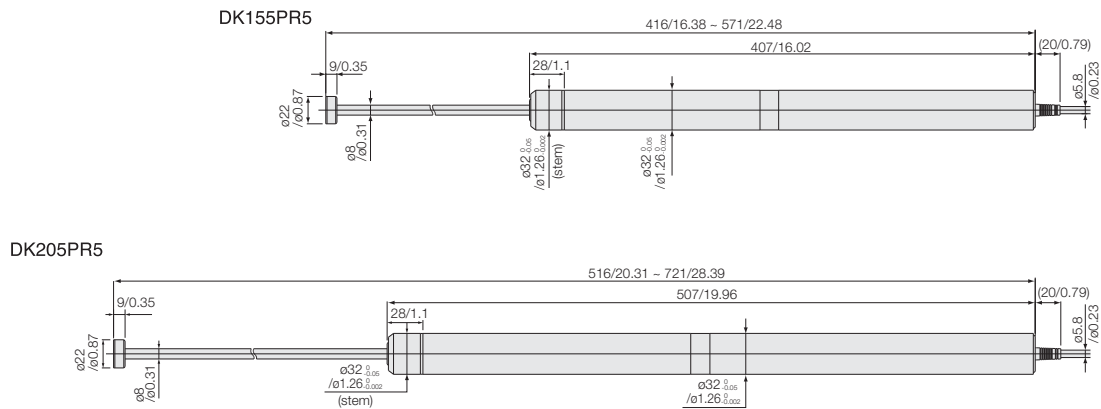
- Measuring range : 155 mm / 6.1" and 205 mm / 8.07"
- Accuracy : 5 μm (DK155PR5), 6 μm (DK205PR5)
- Resolution : 0.5 μm ● Excellent resistance to workshop conditions.
- Magnet feeler (DG155BP/205BP)
- Direct connected to A/B quadrature counter



DK155PR5/DK205PR5
*The photo shows DG155PR5

Digital Gauge

Dimensions



Specifications

Model	DK155PR5	DK205PR5
Output	A/B/Z phase voltage-differential line driver output (compliant with EIA-422) *Please see P15 Output Signal Phase Difference.	
Resolution*1	0.5 μm	
Measuring range	155 mm	205 mm
Accuracy (at 20°C)	5 μm	6 μm
Reference point	One location (at 5 mm position of spindle movement)	
Maximum response speed	250 m/min	
Vibration resistance (10 to 2000 Hz)	150 m/s ²	
Impact resistance (11 ms)	1500 m/s ²	
Protective structure	IP64	
Operating temperature	0°C to 50°C	
Storage temperature	-20°C to 60°C	
Power supply voltage	DC +5 V \pm 5%	
Power consumption	1 W or less	
Cable length	Approx. 2.5 m	
Diameter of stem	$\phi 32$ $\frac{0.05}{0.002}$ mm	
Mass*2	Approx. 1100 g	Approx. 1300 g
Feeler mounting base	Magnetic substance	
Magnetically attachable feeler	Magnetic attraction: 10 N, resistance against horizontal slip: 2.7 N Provided with $\phi 4$ mm carbide ball tip	
Spindle*3	$\phi 8$ mm, radial swing: 0.04 mm max.	
Output cable length	22 m max.	
Guaranteed number of Strokes	Minimum 5 million cycles without shock	
Accessories	+P M4x5 screw (2 pcs.), Instruction Manual	

Note 1 : The resolution setting needs to be made when connecting to the LT30 series, MG series, and LY70 series. For details, please refer to the respective instruction manual.

Note 2 : The mass indicated is the total mass excluding the cable and interpolation box.

Note 3 : The spindle weighs about 400g.